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THE DATA

The focus of any empirical treatment of the executive compensation package must be the individual executive himself. Pension plans, profit-sharing schemes, deferred compensation arrangements, stock options, and other devices have no real meaning as instruments of remuneration except in their application to specific situations. The one sensible way to look at compensation, therefore, is to look at the people being compensated.

Sources of Data

The proxy statements issued by corporations in connection with their annual shareholders' meetings constitute the only regular and comprehensive source of information about the rewards received by individual executives. The Securities and Exchange Commission requires firms listed on organized stock exchanges ¹ to report in their proxy statements the salaries, bonuses, pension expectations, stock options, and other major items of compensation of their top officials.² As might be expected, the degree to which different companies respond to the spirit as well as the letter of the law varies greatly, but in most cases the information provided is sufficient to permit all the important rewards that executives receive to be analyzed with considerable precision.³ Since only a

¹ And, recently, some firms traded over the counter as well.

² Specifically, the requirement since 1954 has been that the compensation of the three highest-paid officers and of any officer earning more than \$30,000 per year in salary who is also a director be reported. Prior to 1954, the threshold was \$25,000 and, in the early 1940's the form of the disclosure rule itself was somewhat different.

³ The chief exceptions, as was noted in Chapter 5, being company-provided life and medical insurance arrangements, expense accounts, and savings plans.

small number of the highest-ranking individuals in each firm are reported on, however, the analysis here must be confined to their compensation experience. While this is a constraint, it is not necessarily a serious one for several reasons.

First, these are the men who make the major policy decisions for their firms and who thereby play a major role in determining the pattern of economic growth and resource utilization observed in the community. If there is some concern about the performance of our economy over time and about the decisions which spark that performance, it makes sense to concentrate a good deal of attention on the people who formulate the crucial policies. Secondly, the rewards received by these same people establish a foundation for pay scales throughout the corporate organization and thus provide a standard by which men at lower management levels are apt to judge the adequacy of their own compensation and toward which they may look for an incentive to move upward. If, as has been claimed in recent years, the after-tax monetary benefits associated with becoming a top executive are not sufficient in themselves to act as an inducement to younger persons to attempt to attain that status, we must rely on other types of motivation to fill the gap or resign ourselves to an inadequate supply of the right kind of talent in this area. Finally, if we are interested in the effects of personal income taxation on the attitudes and actions of individuals, senior corporate executives are a logical group to study. Because of their very high incomes, progressive taxes have an especially large impact on them and they would, as much as any segment of society, be expected to display some reaction thereto. Accordingly, whether out of concern for behavior now or in the long run, the remuneration of the few men at the top of the corporate pyramid is of considerable importance and merits our attention.

The Sample

While there are a number of possible bases for choosing the specific group of companies from which to draw such a sample, the decision here was to focus on large manufacturing corporations. In part, the feeling was that the leaders of *large* firms are the pace-setters for the nation's

managerial class. They frequently represent it to the public, define for it standards of competent performance, and provide in their rewards a benchmark for the compensation of executives in other, smaller companies. A sample having these characteristics can therefore be viewed as an instrument for obtaining as much mileage as possible from a given amount of data as well as being interesting in its own right.

The choice of manufacturing firms in particular was dictated as much by personal preference as by the thought of any unique advantages to be gained. A sample consisting of utilities, financial institutions, transportation firms, companies engaged in retail trade, etc., would very likely have been a suitable alternative.⁴ Concentration on a single category of firms in order to develop as coherent and structured a body of data as possible did appear a desirable objective, however. In that connection, large manufacturing corporations have enough in common to make comparisons among them meaningful and enough diversity to make the same comparisons interesting. Therefore, while they are by no means the only sensible choice, they do have some advantages, are obviously prominent in the economy, and constitute a familiar frame of reference. As such, they should be well suited to the task of providing a solid foundation for an empirical analysis of the compensation package.

Selection of Companies

Two questions remain to be answered: (1) What is a "large" company? and (2) How many of them comprise a sufficient sample from which to draw inferences? Since neither question has a very well-defined theoretical solution in the present context, both must be settled somewhat arbitrarily.

The relevant measure of company size is taken to be annual sales volume. While a strong case could be made for profits, total assets, market value of outstanding securities, and several other criteria, the absence of a clear signal from the nature of the problem suggests that

⁴On the other hand, the several dimensions of the executive pay package have been somewhat more fully developed by manufacturing corporations than by other sectors of the business community. For example, financial institutions and public utilities have in general used instruments such as stock options less extensively than have manufacturers.

the decision is essentially a matter of taste and convenience. Given a desire to study executives whose actions have a significant impact on the economy, sales may be marginally preferred as an index of size because they seem to provide the best measure of the sheer weight of economic activity undertaken by a company.⁵ They are also a convenient choice: the task of ranking manufacturing firms according to their sales volume is performed annually by *Fortune* magazine in its compilation of the five hundred largest American industrial corporations.⁶ This service may therefore be exploited and those tabulations used as the source from which to draw a sample. In any event, if sales are adopted as the yardstick, the group of companies chosen will not be very different from that which would result were any one of several other criteria selected instead. It happens that firms with a high level of sales also have high profits, many assets, and a substantial market value. Indeed, almost any common measure of size will yield a very similar list—similar enough that a long search for the “right” measure here is not worthwhile.⁷

The latter point is reinforced when it is recalled that data on the compensation of a particular executive must extend over a period of time if his experience is to be analyzed properly. This means that both the executive and his company must be in the sample for a number of years if they are to appear at all. Because the firm's dimensions will change over such an interval, whichever one is chosen as most indicative of its relative standing in the business community in a given year will not necessarily provide the same ranking in every other year. There is little to be gained, therefore, from an attempt to establish a rigorous case in principle for a criterion that must immediately be compromised in application.

The conclusion this leads one to is the following: A sample consistent with the objectives established can legitimately be chosen by

⁵ Even this assertion, of course, must be highly qualified. One could well argue, for example, that total assets as a measure of resources controlled are better suited to the purpose of indicating “impact” or “importance.”

⁶ The July issue each year contains this list and a discussion of the attributes of the firms included.

⁷ For example, if the 1964 list of firms in *Fortune* was reclassified according to asset size, of the first twenty only four would not be present among the first twenty on the revised list.

taking a list of the nation's largest manufacturing companies ranked in a recent year by any one of several characteristics, starting at the top, and simply working down until the desired number is obtained, eliminating along the way those firms whose executives' compensation cannot be properly analyzed because of insufficiencies in the historical data. This is in fact what was done.

The basic decision was to seek a sample of fifty companies in all—a number judged to be enough to allow statements about average values and trends over time to be made with some confidence. As it later turned out, a sample of this size yielded data on approximately 550 individual executives involving almost 8,000 man-years' worth of compensation experience.

The sample was assembled from the *Fortune* magazine tabulation for 1964.⁸ Beginning with General Motors, the back proxy statements of some eighty companies were examined for clarity, consistency, completeness, and availability. This last consideration was obviously a crucial one. There are very few extensive collections of corporate proxy statements in existence and even fewer that contain records for more than a half dozen years or so back in time. One such collection—at the Harvard Business School's Baker Library—was accessible to the author. Because that collection is quite comprehensive, missing data was seldom a stumbling block. Of the some eighty corporations checked, only four had to be ruled out because their proxies were not available.

The next question was whether the manner in which the firm chose to respond to the various SEC reporting requirements over the years provided enough information on its executives to permit an analysis of their rewards. Some companies, for instance, supply in their proxy statements the formal schedule of annual retirement benefits for their pension plans as a function of years of employment and average salary but do not translate that schedule into actual benefit promises for individual executives. In certain cases it was possible to perform this translation from information gathered elsewhere and from various bits of data contained in the proxy statements themselves, but most commonly it was not, and companies in this category usually had to be excluded from the sample.

⁸ Which ranks firms according to their fiscal 1963 sales. Volume LXX, No. 1, pp. 179-198.

Another problem situation was the one in which the corporation as it was constituted in 1964 had been put together by a series of mergers. When this had happened, there frequently was not sufficient continuity of personnel or of compensation policy to render an analysis of its history very meaningful. Moreover, to the extent that such an effort was possible, it would deal with men who for much of the relevant time period were employed by companies much smaller than those with which the sample sought to concern itself.

A variety of other difficulties was also encountered. One enterprise classified among the top manufacturers—Western Electric—issues no proxy statements of its own because it is a wholly-owned subsidiary of another company. The shares of some firms—Ford Motor Company being perhaps the most prominent example—were not listed on an organized stock exchange until relatively recently and therefore did not have a long enough proxy statement file to be useful. Still others had only a small number of executives at any one time who were also directors and, in consequence, were required to report the compensation of so few men each year that no adequate history could be assembled for any of them. Ultimately, it was necessary to reach down to the corporation which ranked seventy-eighth in sales volume among manufacturing firms in 1963 in order to round out a list of fifty.

The Companies

These were all minor problems, however, and the resulting sample can, as well as any other, be considered representative of very large American industrial corporations. Most, if not all, the firms included would be termed "blue chips" in the language of the investor. A wide range of both size and type of company appears. The full list is presented in Appendix I.

The fifty firms had, in 1963, a combined sales volume of \$93.8 billion, assets of \$77.8 billion, a net profit of \$6.6 billion, and a total equity market value equal to \$113.0 billion. As a group they generated approximately 22 per cent of the total sales of all United States manufacturers in that year.⁹ The largest—General Motors—had sales of

⁹ United States Department of Commerce. *Survey of Current Business*, May 1955, pp. 3-4. Total sales of all manufacturing firms in 1963 were \$417.3 billion.

\$16.5 billion and the smallest—Tidewater Oil—sales of \$660 million. A breakdown of the sample by industry would read as follows:

Agricultural machinery	2
Aircraft and aerospace	6
Autos	1
Chemicals	4
Containers	2
Electrical and electronics	4
Food and dairy products	4
Nonferrous metals	2
Office equipment	1
Paper	1
Petroleum	9
Rubber	5
Steel	5
Tobacco	2
Miscellaneous	2

While rankings which go back beyond 1955—the first year for which *Fortune* compiled its list—are not readily available, it can be seen from Appendix A that the large majority of these companies have almost certainly been among, say, the nation's top one hundred manufacturing corporations throughout the entire last quarter century. Some, of course, such as IBM, have experienced a very rapid growth in sales in recent years and therefore were not major companies by that definition in the 1940's. Situations of this sort are in the minority, however, and, to the extent a choice was necessary, it seemed most appropriate to include in the sample companies important now but not twenty-five years ago rather than the reverse.

Time Period Covered

The objective established at the outset was very simply to develop as much of a history as the data would permit. Since proxy statements were the key documents, this meant that the study would go back as far as they did. The year 1940 turned out to be the practical limit of the analysis. Proxy statements were first required for listed companies by the then-newly-formed Securities and Exchange Commission in the late 1930's, but the disclosure rules applicable to them were apparently

not sufficiently well defined to bring about uniform and comprehensive reporting of remuneration until several years later. The timing involved was fortunate because it effectively coincided with the first serious wave of pension plan adoptions by American corporations. It was therefore possible in almost every instance to obtain the provisions of such plans directly from the proxy statements themselves and to observe their translation into benefit promises for individual executives right from the start. Coupled with the long list of executives whose rewards the reporting requirements of the 1940's made public (the initial confusion having been dispelled by rather severe disclosure rules) this circumstance not only made the data for the early years of the study quite complete but eliminated much of the need to estimate compensation data for various individuals who did not attain high positions within their companies until later on.¹⁰ The analysis begins with 1940, therefore, and continues through 1963.

The Executives

Over this period, data were collected in an attempt to provide an evaluation of the rewards in each year of the *five* highest-paid executives in all fifty companies. Once again, the original goal was to reach as far down in the corporate hierarchy as the available information would allow. After several trial runs, the fifth-ranking man seemed to be the lowest which, considering the entire sample of firms, the proxy data would with any reasonable frequency support.

The degree of success achieved in meeting even this objective, while generally high, varied widely from company to company. For five firms it was possible to fill all five slots in each of the twenty-four years and, in two others, all five in every year but one. The worst company in this regard was by far the worst, supplying enough information to fill only thirty-three of the 120 possible spaces. For no other firm were there less than seventy-four filled. In all, out of the 6,000 man-years' worth of compensation history sought,¹¹ a total of 5,300 were obtained, involving altogether 558 different executives. A tabular summary of the resulting population by years is presented in Appendix J.

¹⁰ The problem of extrapolating certain data for particular executives is discussed below.

¹¹ That is, fifty companies over twenty-four years.

It was necessary to assemble more than 5,300 man-years of executive experience, however. In order to determine the value of certain of a man's rewards—his pension and deferred compensation, for example—we must analyze his history starting with the year he is *first* promised benefits under such plans. Data for him for a number of years in advance of the time he becomes one of his company's top five executives are therefore likely to be required. This occurred often enough in practice that a total of 7,802 man-years of compensation experience was eventually collected and processed.

One adjective used very casually in the preceding paragraphs requires a little more elaboration. It is really not possible to establish which individuals in a firm are its five "highest-paid" until *after* the value of each man's rewards has been analyzed and the appropriate current income equivalents constructed. Salary alone is clearly an incomplete ranking criterion. Thus it is not correct to state simply that, for the purposes of the empirical portion of the study, data on the top five men in every company were collected. More precisely, data on enough men were collected so that after an analysis of their remuneration the top five would be sure to emerge. It was frequently necessary, therefore, to examine information on a greater number of executives for each firm in each calendar year. Indeed, one of the comparisons the procedures developed here make possible is between the executive rankings within a company implied by salaries and those which result from considering the full range of rewards.¹²

Demographic Data

In addition to the compensation figures provided by the corporation's proxy statements, the individual executive's age and marital status are important to the analysis. Calculations involving mortality considerations of course depend quite heavily on the former, and tax liabilities are greatly affected by the latter. After-tax present value comparisons, therefore, require that both characteristics be identified.

On occasion it was possible either to obtain or to infer the executive's age directly from the proxy statements. For instance, the number of

¹² See below, Chapters 10 and 11.

years remaining until "normal retirement age," i.e., age 65, might be reported in some connection by a company for each of its officers in a particular year. This sort of thing did not happen very often, however, and other sources had to be relied on in the large majority of cases. *Who's Who in America* and *Who's Who in Commerce and Industry* supplied most of the data. Each presents a short biographical sketch of the individuals it records, and both age and marital status are included. For executives who did not appear in one or the other of these, *Poor's Register of Corporations, Directors, and Executives* was the next line of defense. If that also failed, the assumption was made that the executive in question was indeed age 65 when he was observed to retire and that he was married. For approximately forty out of the 558 men in the sample, no conclusive evidence as to birth date or marital status could be found, and the assumption indicated was necessary.

Estimating Data

In situations where data were required for an individual for a period of years prior to the time he appeared in his firm's proxy statements, it was almost always possible to reconstruct the relevant experience by comparing the man's career with that of another, more visible executive in the same firm, and by making use of various pieces of information contained in the proxy statements after he did appear.

Suppose, for example, that an executive who has been laboring anonymously for a company for a number of years finally attains a position such that his compensation is reported. Suppose further that his salary thereafter is seen to follow consistently one step behind that of a fellow executive for whom a long record of data does exist. If, then, there is some indication from the proxy statements or from information in *Who's Who* that they held the same relative positions in the past as well, it is a fairly easy matter to reconstruct the first man's history—at least when it is not necessary to go back too far in time. We may simply impute to him past salary figures which bear each year the same relationship to the other executive's observable past salary as do his current ones. If the man's age, the date of his employment, and the benefit formulas under the corporation's various supplemental

compensation plans are known, the benefits that would have been in prospect for him at all those previous salary levels under such plans can also be computed.

Another situation is that in which an executive who has held the same position in his company for some time suddenly appears in its proxy statements not because of a promotion but by virtue of his election to its Board of Directors. From his current salary and a record of the salary levels over time for the several positions in the company just senior to his, his past experience can be approximated reasonably well. Again, any supplemental compensation promises can be estimated either from the provisions of the plans or by extrapolating the current relationship between those benefits and his salary.

It is frequently possible, therefore, to get a good estimate of that portion of an executive's compensation history which is not directly visible in his firm's proxy statements. The latter aid this effort by reporting—as the SEC requires—the positions a man has held during the five years prior to that in which he is first presented to the shareholders for election to a directorship. His biography in *Who's Who* can be referred to in order to supplement such information when it is necessary to have a longer record. Finally, a clue to the early history of many executives who became important in the 1950's is conveniently provided by corporate proxy statements for the years 1942 through 1946. During that time the SEC specified that the compensation of *all* officers of a company who received a salary of \$20,000 or more per year had to be reported whether or not they were also directors or were among the firm's three highest-paid executives. While this requirement was subsequently relaxed,¹³ enough men came under it for a year or two to make easier and more precise the task of extrapolating data for those who reappeared later on in high positions.

If, after exploring all these possibilities, it turned out that there was just no way to get a pretty good idea of the profile of a man's compensation experience before his name appeared in his firm's proxy statements, he was simply excluded from the sample. The use of "typical" compensation—i.e., salary—growth rates of the sort suggested by previous

¹³ See footnote 2 of this chapter.

studies in order to extrapolate data for a man for a long period of time when it could not be obtained from evidence as to his actual experience was taken to be inappropriate and explicitly ruled out. Indeed, the objective here is to do no less than reject the notion of typical as such studies have defined it and to develop a more comprehensive measure which includes all the executive's rewards.

Of the total 7,802 man-years' worth of compensation experience which was eventually analyzed, 1,561 (or 20 per cent) consisted of estimated rather than directly observed data. Those estimates were confined primarily to years in which the various individuals' remuneration was considerably lower than it was when they finally did appear in proxy statements. For this reason, the effect of errors in any of the projections on the results of the analysis is much less significant than even the proportionate number of years involved would suggest. In order not to leave this a matter of faith, however, the impact of some fairly severe mistakes in estimation for a "typical" executive will be considered later on in conjunction with an examination of changes in discount rates, outside income, and other parameters.¹⁴

Annuity Premium Rates

An appraisal of the worth of a corporation's pension plan to each of its employees centers on the cost to them of a particular instrument—a "nonparticipating" individual retirement annuity. It was necessary, therefore, to construct a schedule of those costs which could be offered as characteristic of the premium rates actually charged by insurance companies over the time period covered by the study. For this purpose, historical data were obtained from two leading firms who have issued substantial numbers of such policies during the last quarter century: Connecticut General Life Insurance Company and The Travelers Insurance Company, both of Hartford, Connecticut. The average in each year of the two firms' quotations was taken to be a reasonable representation of the prices that would have been confronted by an executive had he sought to provide his own retirement income. Appendix K spells out the details and tabulates the resulting schedule.

¹⁴ See Chapter 12.

Summary

The five highest-paid executives in fifty of the nation's largest manufacturing firms constitute the sample to which the valuation techniques developed in previous chapters will be applied. The experience of such men was chosen for scrutiny out of a desire to deal with individuals whose decisions have a significant impact on the economy and whose rewards are likely to set a standard for the compensation not only of their subordinates but of executives in other firms as well. In compiling the sample, the objective was to include as many men and to go back as far in time as the available information would allow. Since corporate proxy statements are the only comprehensive source of data on the remuneration of particular individuals, the dimensions of the study were largely dictated by their characteristics. As it turned out, the histories of 558 different executives representing approximately 7,800 man-years of compensation experience back to 1940 were collected and analyzed. The results of that effort now follow.